

SYNONYMIC NOTES ON SOME OF THOMSON'S NEW WORLD DOLICHOPODIDAE (DIPTERA)¹

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ABSTRACT: Types of four New World Dolichopodidae described by C.G. Thomson (1869) from material gathered during the voyage of the Swedish frigate *Eugenie* were examined. Three new synonyms are established. *Dolichopus lamellicornis* is a senior synonym of *Hygroceleuthus afflictus*. Of three overlooked species described by Thomson from Puna, Ecuador, *Chrysotus ochropus* is redescribed and regarded as a senior synonym of *C. flavipalpus*, *Psilopus zonatulus* is a junior synonym of *Condylostylus longicornis*, and *Psilopus pleuralis*, known only from the female type, is referred to the *Condylostylus caudatus* group.

While completing a faunal study of the Galápagos Dolichopodidae (Bickel & Sinclair, in press), I had the opportunity to examine some New World dolichopodid types described by C.G. Thomson, 1869 from material gathered during the voyage of the Swedish frigate *Eugenie* (see Persson, 1971 for an authoritative account of the collecting localities). Some of these species had been overlooked in revisions of New World dolichopodid genera, and/or had been omitted from major catalogues. Three of the species proved to be synonyms. These matters are discussed below.

Dolichopus lamellicornis Thomson.

Dolichopus lamellicornis Thomson, 1869: 511.

Hygroceleuthus afflictus Osten Sacken 1877: 313. **NEW SYNONYM.**

Dolichopus lamellicornis was overlooked in the principal revision of North American *Dolichopus* (Van Duzee, et al., 1921) and subsequently was listed under "Unplaced Species of Dolichopodidae" in the Catalog of the Diptera of America North of Mexico (Foote, et al., 1965).

The lectotype of *Dolichopus lamellicornis*, here designated, is a female, bearing the labels: "California/ Kinb./Type". The body length of the lectotype is 6.0 mm, not 7.0 mm as stated in Thomson's description.

I used the key to female Nearctic *Dolichopus* (Van Duzee & Curran, 1934) and the specimen was confidently identified as the widespread western North American *Dolichopus afflictus* (Osten Sacken), an identification substantiated by the description in Van Duzee, et al., 1921. Although the lectotype of

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Dolichopus lamellicornis bears a locality label with only the word "California", the ship's records note that the only Californian port of call was San Francisco, from July 3 to August 11, 1852, and the specimen probably was collected in vicinity of that city. The type locality of *D. afflictus* is San Rafael, Marin County, adjoining San Francisco Bay.

Osten Sacken 1877, in his description of *Hygroceleuthus afflictus* (*Hygroceleuthus* is a synonym of *Dolichopus*) thought that on the basis of Thomson's description, *D. lamellicornis* was possibly the female of the species. He reasoned that if Thomson's female specimen had an indentation on hind wing margin similar to that of male *D. afflictus*, then the two species possibly were conspecific, especially since both sexes of the related species *D. crenatus* had indented hind wing margins. Since Thomson's description did not note any wing indentation, Osten Sacken therefore considered them to be different species. Therefore, it is noted here that the wing of the *Dolichopus lamellicornis* female lectotype does have a marginal indentation at the apex of vein CuA, as has been described for female *D. afflictus*.

The following three species were collected at Puna, an island in the Gulf of Guayaquil, Ecuador, and are not listed in the "Catalogue of the Diptera of the Americas south of the United States" (Robinson, 1970), nor in any other recent Diptera catalog. Becker (1922a: 220) thought that the locality "Puna" given in Thomson's descriptions was Puma (*sic.*), India, and therefore he listed one of the species, *Psilopus zonatulus* (as *Condylostylus zonatulus*) in his monograph on the Indo-australian fauna. None of the three species appears in his treatment of the New World Dolichopodidae (Becker, 1922b).

Chrysotus ochropus Thomson.

Chrysotus ochropus Thomson, 1869: 505.

Chrysotus flavipalpus Van Duzee, 1930: 76. **NEW SYNONYM.**

The lectotype, here designated, is a male in fair condition bearing the labels "Puna/ Kinb./Type". A diagnosis based on the holotype is given below, and the species is placed in synonymy with *Chrysotus flavipalpus* Van Duzee, described from San Bartolome, Lima, Peru. In the following diagnosis, the relative lengths of the podomeres are representative ratios, not measurements, and for each leg are given in the following formula and punctuation: trochanter + femur; tibia; tarsomere 1/ 2/ 3/ 4/ 5; the abbreviations (MSSC) means "male secondary sexual character(s)," the non-genitalic characters found only on the male body.

Diagnosis: Male: length: 2.0 mm; wing: 1.7 x 0.6 mm.

Head: vertex and frons metallic blue-green with some grey pruinosity; pairs of strong diverging ocellars, strong verticals, and short postverticals present; eyes almost joined across face-clypeus, but separated by narrow band

of grey pruinose cuticle; palp yellow; proboscis brown; scape and most of pedicel yellow; distalmost pedicel and first flagellomere brown; first flagellomere subtriangular with apical arista; ventral postcranium with pale postorbitals.

Thorax: mostly obliterated by pin, but metallic green with bronze reflections; setae black; lateral scutellar setae about 1/4 the length of medians.

Legs: coxa I yellow; coxae II and III brown; remainder of legs mostly yellow; coxae I and II with pale anterior setae; coxa III with strong brownish lateral seta; leg I: 2.7; 2.3; 1.0/ 0.6/ 0.3/ 0.2/ 0.3; femur I in distal half with row of 7 projecting brown pv setae (MSSC); tibia I with crestlike row 12-15 pale ventral hairs which are longer than normal vestiture, and which continue as row of short pale hairs on tarsus I (MSSC); leg II: 3.2; 2.8; 1.2/ 0.5/ 0.4/ 0.3/ 0.3; femur II with group of 4-5 brown subapical pv setae (MSSC?); tibia II with very strong ad and much weaker pd near 1/4, and with weak offset ad and pd setae near 1/2, and with strong ventroapical seta; leg III: 3.5; 3.7; 1.0/ 0.8/ 0.4/ 0.3/ 0.3; femur III with 3-4 long brownish av and pv setae from 1/2 to 3/4 (MSSC), and in apical quarter with very strong av seta followed distally by weaker seta; tibia III with ad and pd setal pairs at 1/5 and 1/2, and with some short dorsal setae.

Wing: hyaline; R_{4+5} and M parallel to apex; CuAx ratio: 0.3; lower calypter yellow with fan of brownish setae; halter yellow.

Abdomen: metallic blue-green with bronze reflections, and covered with short brownish vestiture; hypopygium with dark brown capsule and yellow cercus.

Remarks: *Chrysotus ochropus* is now known from coastal Ecuador and Peru. It is closely related to *C. brevicornis* Van Duzee, found in the Galápagos, Central America and Mexico. Both species have a similar overall description and coloration, and have similar leg setation: pv setae on femur I (MSSC), tibia I with row of pale ventral hairs (MSSC), similar tibia II setation, femur III with long brownish pv setae from 1/2 to 3/4 (MSSC). They belong in the *picticornis* group (see Bickel & Sinclair, in press, for further discussion).

Condylostylus longicornis (Fabricius)

Musca longicornis Fabricius, 1775: 783.

Psilopus zonatulus Thomson, 1869: 509. **NEW SYNONYM**

Condylostylus zonatulus (Thomson) [Becker, 1922a: 220].

The lectotype of *Psilopus zonatulus*, here designated, is a female bearing the labels "Puna/ Kinb./Type". It is conspecific with *Condylostylus longicornis* (Fabricius), agreeing in every detail with this common and widespread New World species. The earlier synonyms and distribution of this species are discussed in Bickel (1994: 108).

It should be noted that *Psilopus zonatulus* Thomson is also a junior homonym of the Palearctic *Psilopus zonatulus* Zetterstedt, 1843, a valid species in the genus *Sciapus* (see Meuffels & Grootaert, 1990).

***Condylostylus pleuralis* (Thomson).**

Psilopus pleuralis Thomson, 1869: 510.

Psilopus pleuralis is known only from the female lectotype, here designated, which bears the labels the labels "Puna/ Kinb./ Type". It was referred to *Condylostylus* in Bickel (1994: 107).

This species clearly belongs in the widespread New World group of species centered around *Condylostylus caudatus* (Wiedemann) (see Becker, 1922b and Van Duzee, 1927). However, females in this group cannot be accurately identified. Previously, *C. caudatus* itself was thought to be widespread throughout both North and South America, but both Van Duzee (1927) and Robinson (1970, 1975) regard most of the tropical records as being that of *C. graenicheri* (Van Duzee) or some other related species. Without further study, it is premature to make a decision, but *C. pleuralis* is possibly a senior synonym of *C. graenicheri* (Van Duzee) or *C. barbatus* (Aldrich), or a junior synonym of two other South American *caudatus* group species, *C. anceps* (Wiedemann) and *C. smaragdulus* (Wiedemann). Unfortunately, both Wiedemann species are described from females and remain unidentifiable. Until the entire New World *caudatus* group is revised, there will be uncertainty regarding names. The large number of old species based on unidentifiable females is regrettable, especially since they have the potential to become senior synonyms of subsequent well-described species.

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